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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,544	07/10/2003	Steven M. Madey	5827-002	4300

7590 04/11/2005

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EXAMINER

LINDSEY, RODNEY M

ART UNIT PAPER NUMBER

3765

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,544

Applicant(s)

MADEY ET AL.

Examiner

Rodney M. Lindsey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 10-13, 15, 18-20, 23, 26, 30, 31, 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14, 16, 17, 21, 22, 24, 25, 27-29 and 32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/6/3, 4/5/4</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the species of Figures 6 and 7 in the reply filed on March 24, 2005 is acknowledged.
2. Claims 10-13, 15, 18-20, 23, 26, 30, 31, 33 and 34 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 24, 2005.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "128" and "D". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "features" as set forth in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-9, 14, 16, 17, 21, 22, 24, 25, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al. With respect to claim 1 note for instance Figure 2 of Nakayama et al. and inner helmet layer 24, outer helmet layer 21, 23 and interface layer 25. With respect to claim 2 note the hard shell 21 and the energy absorbing layer 24. With respect to

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claim 3 note the microshell 21, first energy absorbing layer 23 and second energy absorbing layer 24. With respect to claim 6 note the spherical curvature in the Figure 2 embodiment. With respect to claim 7 note the uniform thickness of the interface layer 25 as shown in Figure 2. With respect to claim 8 note the gap filled by the interface layer 25 as shown in Figure 2. With respect to claim 9 note the vents per paragraph [0044] of Nakayama et al. With respect to claim 14 inherently the interface layer would respond non-linearly to tangential forces with forces that would cause inelastic change being larger than those that would only cause elastic change. With respect to claims 16 and 17 note paragraph [0025] and the use of gels. With respect to claim 21 note paragraph [0008] and the rotational and perpendicular components of force absorbed. With respect to claim 22 note the inherent forward displacement capability of the outer helmet layer like shown in Figure 8. With respect to claim 24 note Figure 2 and the joined inner helmet layer 24, outer helmet layer 21, 23 and interface layer 25. With respect to claim 25 inherently the interface layer would respond to forces that would cause inelastic change in a manner different than to those that would only cause elastic change. With respect to claim 27 note the spherical curvature in the Figure 2 embodiment. With respect to claim 28 note paragraph [0008] and the rotational and perpendicular components of force absorbed.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 4, 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of Griffiths. With respect to claims 29 and 32 note Figure 2 of Nakayama et al. With respect to claims 4, 29 and 32, Nakayama et al. do not teach the use of a helmet retention system. Griffiths teaches old the use of a helmet retention system as at 13. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the helmet of Nakayama et al. with the chin straps 13 of Griffiths to achieve the advantage of enabling retention of the helmet on a wearer's head.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of Lovell. Nakayama et al. do not teach single axis rotation constraining features. Lovell teaches old the use of single axis rotation constraining features as at 13, 14. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the helmet of Nakayama et al. with the 13, 14 of Lovell to achieve the advantage of controlling the relative movement between the helmet layers to inhibit the relative movement to an acceptable and therefore effective degree.

Conclusion

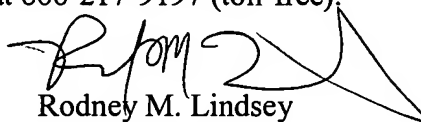
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note particularly, the ventilated helmets of Mendoza and Chiarella, and the helmet layers of Von Holst et al., Nomiya, Gyory, Popovich, Howat, Wallace and French patent to S.L. France.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney M. Lindsey whose telephone number is (571) 272-4989. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rodney M. Lindsey
Primary Examiner
Art Unit 3765

rmf